

REMARKS

Claims 1-11 are pending. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

In The Drawings

The drawings were objected to because Figure 19 did not include a proper legend. Applicant submits herewith a “replacement sheet” for Figure 19 which has been amended to include a --Prior Art—designation. Accordingly, Applicant respectfully requests withdrawal of this objection.

In The Specification

The title of the invention was objected to for being non-descriptive. Applicant has amended the title to be more descriptive. Accordingly, Applicant respectfully requests that this objection be withdrawn.

Claim Rejection Under 35 U.S.C. § 102

Claims 1-11 were rejected under 35 U.S.C. § 102(b) over Akiyama et al. (U.S. Patent No. 5,182,626). Applicant respectfully traverses this rejection.

Claim 1 recites, in part, a semiconductor device which includes a semiconductor layer and a defect region provided in a portion of the semiconductor layer that includes an entire non depletion layer. The non-depletion layer is not depleted after a switch-off operation, and a half-valued width of a lattice defect concentration of the defect region is thicker than the thickness of the non-depletion layer. In contrast, Akiyama teaches (column 13, lines 10-40) that a defect distribution peak half-value width W with respect to helium and hydrogen ions is smaller than the width of layer 2A. Specifically, Akiyama teaches that since the width of layer 2A is 10 μm , helium ions are preferred because they result in a half-value width W of 9 μm but that if the layer 2A was made thicker, hydrogen ions could also be used. Accordingly, Akiyama does not teach or suggest that a half-valued width of a lattice defect concentration of the defect region is thicker than the thickness of the non-depletion layer, as recited in claim 1.

Claims 2-11 are believed allowable for at least the same reasons presented above with respect to claim 1 by virtue of their dependence upon claim 1. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

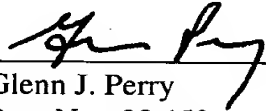
Conclusion

In view of the foregoing, the claims are believed to be in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975 under Order No. 71357/275517. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
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